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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/741,582	12/20/2000	Alan Michael Webb	GB920000041US1	5945

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EXAMINER

BANANKHAH, MAJID A

ART UNIT	PAPER NUMBER
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2127

DATE MAILED: 12/17/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary

Application No.

09/741,582

Applicant(s)

WEBB, ALAN MICHAEL

Examiner

Majid A Banankhah

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 December 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification, or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

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1. This office action is in response to application filed December 20, 2000. Claims 1-27 are presented for examination.

2. The abstract of the disclosure is objected to because it does not describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details. Correction is required. See M.P.E.P. 608.01 (b).

3. The following is a quotation of 35 U.S.C. § 103, which forms the basis for all obviousness rejections set forth in this Office action:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Subject matter developed by another person, which qualifies as prior art only under subsection (f) or (g) of section 102 of this title, shall not preclude patentability under this section where the subject matter and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person.

4. Claims 1-27 are rejected under 35 U.S.C. § 103 as being unpatentable over Holiday (U.S.Pat No. 6,272,674, hereinafter Holiday) in view of Konuru et al. (U.S.Pat No. 6,654,948, hereinafter Konuru).

As per claims 1, 10, and 19 the reference of Holiday teach:

- a virtual machine supporting an OOP environment (See Abstract, Java Virtual machine, and col. 1, lines 47-52 for OOP environment),
- program are formed from class loaded into the Virtual Machine by a class loader (program loaded as a Java Virtual Machine [JVM], col. 1, lines 47-64, and "The internal memory 106 is partitioned to include a logical area of memory, designated as a loader environment 200, for loading the application program 120, col. 3, lines 66-68, continued on col. 4, lines 1-14),

- a class must be initialized before being used by a program (All software for an application is loaded into the JVM, and any compilation, optimization, or initialization takes place, col. 3, lines 18-27), said method comprising:
- starting a first application on the virtual machine, including loading and initializing a set of one or more classes for said application (Fig. 4, element 414, load first class file from package file and update loader environment),
- starting the second application on the virtual machine, said second application initializing said at least one class from the first application, prior to use of said at least one class by the second application (Fig. 4, elements 416, 418, and 420).

The reference of Holiday, fails to explicitly teach of resetting the class and initializing the class that has been reset after the first application has finished running. However, the reference of Konuru teach of monitoring event in an Object Oriented system wherein, in a JVA Virtual machine the class static fields are initialized at loaded time and static initializer feature which is the nature of JAVA language (See col. 8, lines 25-42, For instance, consider the static initializer feature in the Java language. Static initializers are snippets of code, which initialize class static fields at load time. Care must be taken to issue the class load event before any static initializer is run, otherwise the sequencing rules would be violated, having events such as enter and leave events referring to a non-loaded class) and later he teaches of a set management flag in order to reduce the overhead of memory addressing (See Konuru, col. 12, lines 66-68, continued on col. 13, lines 1-21, thus reducing the complexity and performance overheads of **set management** to simple **setting and resetting of flags in objects**. Some program execution environments are such that once objects are allocated in memory, their raw memory address remains the same all through the program execution. In such cases, the need for generating new identities for entities is obviated, as well as the memory for storing

identities). Therefore, it would have been obvious for one ordinary skill in the art at the time the invention was made to use a flag after each class load set in order not to obviate the generation of identities for entities and reduce overhead (See, Konuru, col. 12, lines 66-68, continued on col. 13, lines 1-21).

Per claims 2, 11, and 20, the detail of initialization of class, setting of class after the application started running and resetting of class after the application finished running are all dependent on the setting and resetting of flag and it is shown above, hence, the detail of setting and resetting of flag is taught by Konuru (See Konuru, col. 12, lines 66-68, continued on col. 13, lines 1-21) for the purpose of obviating the generation of identities for entities and reducing overhead as stated above.

Per claims 3, 12, and 21, "Official Notice" is taken that a flag is one or more bits set internally and to reset the flag, the bits are set back to their original default at the time of resetting in order to use that again much the same way every time to reduce overhead, and that does not constitute a patentable distinct limitation [See M.P.E.P. 2144.03].

Per claims 4, 13, and 22, and the middleware environment (Present specification, page 8, last paragraph) the environment of Holiday is also JVM and (See Abstract), the applications as stated in the rejection of claim 1, are Java application, and therefore the two application are capable launched successive application to run on the same JVM (See the rejection of claim 1 above).

Per claims 5, 14, and 23, the reference of Holiday teaches of class loader instance in col. 3, lines 66-68, continued on col. 4, lines 1-14 (**designated as a loader**

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environment 200, for loading the application program 120. The internal memory 106 is used to operate the JVM 100 and is not generally accessible to a Java program running in that JVM for safety and security reasons. The JVM 100 also includes a function component 110 for providing a garbage collection function 110a, a system interface 110b, an execution engine '110c' (**for executing instructions contained in methods of loaded classes**)).

Per claims 6-7, 9, 15-16, 18, 24-25, and 27, the reference of Holiday teaches of passing a reference or the method and checking the said reference (see, col. 5, lines 12-16, The method_info portion 132 contains information about a method (i.e., a procedure or a function), including the **method name and descriptor, such as the return type [checking]**, argument types, and the like; for non-abstract methods, a reference is also made to the byte-codes for the method).

Per claims 8, 17, 26, the JAVA by nature has static initializer method for the reason to provide class static field at load time and therefore, preventing sequencing rule violation, See, Konuru, col. 8, lines 25-42.

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Majid A. Banankhah** whose voice telephone number is **(703) 308-6903**. A voice mail service is also available at this number.

All response sent to U.S. Mail should be mailed to:

Commissioner of Patent and Trademarks

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Washington, D.C. 20231

Hand-delivered responses should be brought to Crystal Park Two, 2021 Crystal Drive, Arlington, VA, Six Floor (Receptionist). All hand-delivered responses will be handled and entered by the docketing personnel. Please do not hand deliver responses to the Examiner.

All Formal or Official Faxes must be signed and sent to either (703) 308-9051 or (703) 308-9052. Official faxes will be handled and entered by the docketing personnel. The date of entry will correspond to the actual FAX reception date unless that date is a Saturday, Sunday, or a Federal Holiday within the District of Columbia, in which case the official date of receipt will be the next business day. The application file will be promptly forwarded to the Examiner unless the application file must be sent to another area of the office, e.g., Finance Division for fee charging, etc.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is **(703) 305-9600**.

Majid Banankhah

12/10/03


MAJID A. BANANKHAH
PRIMARY EXAMINER